

ABSTRACT OF THE DISCLOSURE

A reflection type ion attachment mass spectrometry apparatus is provided with a metal ion generation region, an attachment region and a mass spectrometry region. The metal ion generation region and the mass spectrometry region are formed as a common compartment and the attachment region is provided adjoining the common compartment. The attachment region has an electrostatic field generation unit for forming an electrostatic field in order to reflect the metal ions introduced from the metal ion generation region so as to guide them to the mass spectrometry region. Thereby, a trace ingredient can be detected with a high measurement sensitivity, the problems of disturbance of the mass spectrometer, deterioration of the metal ion emitter, the size of the apparatus, direct sampling, etc. are solved, and broad use in industry is possible.